Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

NORTHERN REGIONAL OFFICE
13901 Crown Court, Woodbridge, Virginia 22193
(703)583-3800 FAX (703) 583-3821
www.deq.virginia.gov

Matthew J. Strickler
Secretary of Natural Resources

David K. Paylor
Director
(804) 698-4000

Thomas A. Faha
Regional Director

September 21, 2020

Ms. Stephanie Cappiello
Deputy Director, WTC
U.S. Department of the Army
P.O. Box 700
Warrenton, VA 20186

Location: Fauquier County
Registration No.: 40902

Dear Ms. Cappiello:

Attached is an administrative amendment to your Title V permit to operate your facility pursuant to 9VAC5 Chapter 80 Article 1 of the Virginia Regulations for the Control and Abatement of Air Pollution. The attached permit will be in effect beginning September 21, 2020.

In the course of evaluating the application and arriving at a final decision to issue this permit, the Department of Environmental Quality (DEQ) deemed the application complete on September 15, 2020.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and/or civil charges. Please read all permit conditions carefully.

This permit approval to operate shall not relieve Warrenton Training Center – Station B of the responsibility to comply with all other local, state, and federal permit regulations.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this case decision notice was mailed or delivered to you. Please consult the relevant regulations for additional requirements for such requests.

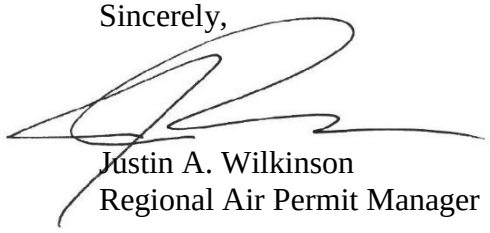
As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal of this decision by filing a Notice of Appeal with:

David K. Paylor, Director
Department of Environmental Quality
P. O. Box 1105
Richmond, VA 23218

If this permit was delivered to you by mail, three days are added to the thirty-day period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

If you have any questions concerning this permit, please contact Ms. Katie DeVoss at (703) 583-3861.

Sincerely,



Justin A. Wilkinson
Regional Air Permit Manager

JAW/KD/40902TVltr(2020-09-21)

Attachments: Permit

cc (electronic file submission):
OAPP
U.S. EPA, Region III

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Federal Operating Permit
Article 1

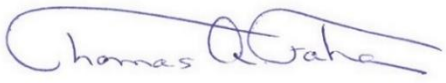
This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1, of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Department of the Army Warrenton Training Center – Station B
Facility Name:	Warrenton Training Center – Station B
Facility Location:	Bear Wallow Road Warrenton, Virginia
Registration Number:	40902
Permit Number:	NRO40902

This permit includes the following programs:
Federally Enforceable Requirements - Clean Air Act (Pages 10 through 42)

April 11, 2016	November 6, 2019	September 21, 2020	April 10, 2021
Effective Date	Modification Date	Amended Date	Expiration Date



Thomas A. Faha
Regional Director

9/21/20
Signature Date

Permit consists of 42 pages.
Permit Conditions, 1-82
Appendix

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Facility Information

Permittee
U.S. Army
Warrenton Training Center – Station B
P.O. Box 700
Warrenton, VA 20188

Responsible Official
Mr. Mitchell P. Embrey
Director

Facility
Warrenton Training Center – Station B
Route 690, 7471 Bear Wallow Rd.
Warrenton, VA 20186

Contact Person
Mr. Matt Riester
Chief, Environmental Safety Office
(540) 428-7452

County-Plant Identification Number: 51-061-00072

Facility Description: NAICS 928110 - Warrenton Training Center – Station B is a military communications training center. The center operates fuel burning equipment such as emergency and non-emergency diesel engine-driven generators, fuel oil fired boilers and various insignificant emissions units. Nitrogen oxides (NO_x), carbon monoxide (CO), volatile organic compounds (VOC), sulfur dioxide, and particulate matter (PM) are emitted from the fuel burning equipment.

The facility is a Title V major source of NO_x. This source is located in an attainment area for all pollutants, and is a PSD minor source. The facility is currently permitted under a minor New Source Review (mNSR) Permit issued on August 25, 2016, as amended on June 18, 2018 (referred to as "6/18/2018 mNSR Permit").

Emission Units

Equipment to be operated consists of:

Fuel Burning Equipment							
Emission Unit ID (Year of Manufacture)	**Stack ID**	**Emission Unit Description**	**Size/Rated Capacity***	**Pollution Control Device (PCD) Description**	**PCD ID**	**Pollutant Controlled**	**Applicable Permit Date**
EG-10 (2010)	EU05	Cummins 12GSAA-6707C (SIIC**)	12 ekW (14 bhp) Output	--	--	--	6/18/2018 mNSR Permit
EG-11F (2010)	EU06	Caterpillar 3516C	2,000 ekW (2,937 bhp) Output	--	--	--	6/18/2018 mNSR Permit
EG-25 (2004)	EU07	John Deere 6068TF250F/258	105 ekW (190 bhp) Output	--	--	--	6/18/2018 mNSR Permit
EG-42 (2004)	EU11	Volvo D250 9.6A60	260 ekW (394 bhp) Output	--	--	--	6/18/2018 mNSR Permit
EG-47 (2017)	EU41	Caterpillar model C13 ACERT	350 ekW (531 bhp) Output	--	--	--	6/18/2018 mNSR Permit
EG-51A (2007)	EU14	Kubota D1703	15 ekW (27 bhp) Output	--	--	--	6/18/2018 mNSR Permit

Fuel Burning Equipment							
Emission Unit ID (Year of Manufacture)	**Stack ID**	**Emission Unit Description**	**Size/Rated Capacity***	**Pollution Control Device (PCD) Description**	**PCD ID**	**Pollutant Controlled**	**Applicable Permit Date**
EG-51B (2003)	EU15	Volvo D250 9.6A60	260 ekW (394 bhp) Output	--	--	--	6/18/2018 mNSR Permit
EG-52B (2005)	EU17	Cummins QSX150G9	400 ekW (755 bhp) Output	--	--	--	6/18/2018 mNSR Permit
EG-52C (2014)	EU18	Cummins QSX150G9	450 ekW (755 bhp) Output	--	--	--	6/18/2018 mNSR Permit
EG-52D (2014)	EU19	Cummins QSX150G9	450 ekW (755 bhp) Output	--	--	--	6/18/2018 mNSR Permit
EG-52E (2014)	EU20	Cummins QSX150G9	450 ekW (755 bhp) Output	--	--	--	6/18/2018 mNSR Permit
EG-52F (2011)	EU42	Cummins DSKCA with Kubota V3300	25 ekW (42 bhp) Output	--	--	--	6/18/2018 mNSR Permit
EG-53A (2017)	EU43	Caterpillar C4.4	100 ekW (161 bhp) Output	--	--	--	6/18/2018 mNSR Permit
EG-60 (pre-2006)	EU22	Detroit Diesel 10337005	50 ekW (109 bhp) Output	--	--	--	6/18/2018 mNSR Permit

Fuel Burning Equipment							
Emission Unit ID (Year of Manufacture)	**Stack ID**	**Emission Unit Description**	**Size/Rated Capacity***	**Pollution Control Device (PCD) Description**	**PCD ID**	**Pollutant Controlled**	**Applicable Permit Date**
EG-70K (2005)	EU33	Caterpillar 3406	350 ekW (519 bhp) Output	--	--	--	6/18/2018 mNSR Permit
EG-80 (Aug. 2006)	EU34	John Deere 4045HF275H	100 ekW (157 bhp) Output	--	--	--	6/18/2018 mNSR Permit
EG-89 (2010)	EU35	Caterpillar C4.4	72 ekW (90 bhp) Output	--	--	--	6/18/2018 mNSR Permit
EG-138 (2016)	EU44	Kohler 48REOZK4	48 ekW (74.3 bhp) Output	Diesel Oxidation Catalyst (DOC)	Dinex Ecocat DOC****	CO	6/18/2018 mNSR Permit
EG-POD 1 (2013)	EU01	Caterpillar 3516C	2,000 ekW (2,937 bhp) Output	--	--	--	6/18/2018 mNSR Permit
EG-POD 2 (2013)	EU02	Caterpillar 3516C	2,000 ekW (2,937 bhp) Output	--	--	--	6/18/2018 mNSR Permit
EG-POD 3 (2015)	EU03	Caterpillar 3516C	2,000 ekW (2,937 bhp) Output	--	--	--	6/18/2018 mNSR Permit
EG-POD 4 (2013)	EU04	Caterpillar 3516C	2,500 ekW (3,634 bhp) Output	--	--	--	6/18/2018 mNSR Permit

Fuel Burning Equipment							
Emission Unit ID (Year of Manufacture)	**Stack ID**	**Emission Unit Description**	**Size/Rated Capacity***	**Pollution Control Device (PCD) Description**	**PCD ID**	**Pollutant Controlled**	**Applicable Permit Date**
EG-POD 5 (2015)	EU40	Caterpillar 3516C	2,000 eKW (2,937 bhp) Output	Selective Catalytic Reduction (SCR) with closed loop dosing	Caterpillar, CAT® Retrofit SCR System***	NOx	6/18/2018 mNSR Permit
EG-POD 6 (2016)	EU45	Caterpillar C175-16	3000 ekW (4,423 bhp) Output	SCR with closed loop dosing	Caterpillar, CAT® Retrofit SCR System***	NOx	6/18/2018 mNSR Permit
EG-POD 7 (2016)	EU46	Caterpillar C175-16	3000 ekW (4,423 bhp) Output	SCR with closed loop dosing	Caterpillar, CAT® Retrofit SCR System***	NOx	6/18/2018 mNSR Permit
EG-POD 8 (2016)	EU47	Caterpillar C175-16	3000 ekW (4,423 bhp) Output	SCR with closed loop dosing	Caterpillar, CAT® Retrofit SCR System***	NOx	6/18/2018 mNSR Permit
EG-POD 9 (2017)	EU48	Caterpillar C175-16	3000 ekW (4,423 bhp) Output	SCR with closed loop dosing	Caterpillar, CAT® Retrofit SCR System***	NOx	6/18/2018 mNSR Permit
EG-POD 10 (TBD)	EU49	Caterpillar C175-16	3000 ekW (4,423 bhp) Output	SCR with closed loop dosing	Caterpillar, CAT® Retrofit SCR System***	NOx	6/18/2018 mNSR Permit
Gen-1 (2005)	EU23	Caterpillar 3516B	1,825 ekW (2,636 bhp) Output	DOC	Miratech*****	CO	6/18/2018 mNSR Permit

Gen-2 (2005)	EU24	Caterpillar 3516B	1,825 ekW (2,636 bhp) Output	DOC	Miratech*****	CO	6/18/2018 mNSR Permit
Gen-3 (2005)	EU25	Caterpillar 3516B	1,825 ekW (2,636 bhp) Output	DOC	Miratech*****	CO	6/18/2018 mNSR Permit
Gen-4 (2005)	EU26	Caterpillar 3516B	1,825 ekW (2,636 bhp) Output	DOC	Miratech*****	CO	6/18/2018 mNSR Permit
Gen-5 (2005)	EU27	Caterpillar 3516B	1,825 ekW (2,636 bhp) Output	DOC	Miratech*****	CO	6/18/2018 mNSR Permit
Gen-6 (2005)	EU28	Caterpillar 3516B	1,825 ekW (2,636 bhp) Output	DOC	Miratech*****	CO	6/18/2018 mNSR Permit
Gen-7 (2010)	EU29	Caterpillar 3516C	1,825 ekW (2,690 bhp) Output	--	--	--	6/18/2018 mNSR Permit
Gen-8 (2010)	EU30	Caterpillar 3516C	1,825 ekW (2,690 bhp) Output	--	--	--	6/18/2018 mNSR Permit
Gen-9 (2010)	EU31	Caterpillar 3516C	1,825 ekW (2,690 bhp) Output	--	--	--	6/18/2018 mNSR Permit
Gen-10 (2010)	EU32	Caterpillar 3516C	1,825 ekW (2,690 bhp) Output	--	--	--	6/18/2018 mNSR Permit
Gen-36B (2008)	EU09	Caterpillar 3054C	40 ekW (72 bhp) Output	--	--	--	6/18/2018 mNSR Permit

BOIL-35A (2009)	EU36	Burnham V1108 #2 fuel oil fired hot water heater	1.820 MMBtu/hr (input)	--	--	--	None

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.
** Spark ignition internal combustion (SIIC)
*** The Caterpillar (CAT) Retrofit Selective Catalytic Reduction (SCR) System includes an SCR with closed loop dosing to control NO_x by 85% guarantee and a diesel particulate filter (DPF) to control PM (no guarantee provided).
**** Dinex Ecocat is the manufacturer for the Diesel Oxidation Catalyst (DOC), which per the U.S. EPA Certificate of Conformity for EG-138 is the only after treatment device.
***** The engines are dual exhaust so there is a DOC for each outlet; Miratech model SP-ZHS-36-15110039-XU2B0 and SP-ZHS-36-16010066-XU2B0.

Fuel Burning Equipment Requirements – (emission unit ID# EG-POD 1 through EG-POD 10, EG-10, EG-11F, EG-25, Gen-36B, EG-42, EG-47, EG-51A, EG-51B, EG-52B through EG-52F, EG-53A, EG-60, EG-138, Gen-1 through Gen-10, EG-70K, EG-80, EG-89, BOIL-35A)

1. **Limitations –** All of the diesel engine-generators identified in this permit shall control emissions as follows**:**

   a. Visible emissions, particulate emissions (PM), carbon monoxide (CO) emissions, volatile organic compound (VOC) emissions, and nitrogen oxide (NO_X) emissions shall be controlled by the use of good operating practices and performing appropriate maintenance in accordance with the manufacturer's recommendations. In addition, the permittee may only change those settings that are permitted by the manufacturer and do not increase air emissions.

   b. Sulfur dioxide (SO_2) emissions from the diesel engine-generators shall be controlled by the use of ultra low sulfur fuels with a sulfur content not to exceed 0.0015% by weight (15 ppm).

   c. Engine-generator sets, Ref. Nos. Gen-1 through Gen-6, shall be equipped with diesel oxidation catalysts (DOCs). Each DOC shall be provided with adequate access for inspection and shall be in operation when the engine-generator set to which it is connected is operating. The engine-generator sets, Ref. Nos. Gen-1 through Gen-6, shall be considered fully operational, for controlled emission calculation purposes, when the catalyst bed inlet temperature is between 550°F (287°C) and 1,250°F (677°C).

   d. Each diesel engine-generator, Gen-1 through Gen-10, shall be equipped with electronic fuel injection, a turbocharger, and an aftercooler.

   e. Nitrogen oxides (NO_x) emissions from the diesel engine-generators, EG-POD 5 through EG-POD 10, shall be controlled by closed loop selective catalytic reduction (SCR). The SCR system shall be equipped with a temperature probe to monitor the catalyst bed exhaust temperature at all times when EG-POD 5 through EG-POD 10 is operating. The diesel exhaust fluid (DEF) dosing enabling temperature shall be 572°F (300°C) (catalyst bed exhaust temperature). The EG-POD 5 through EG-POD 10 diesel engine-generator exhaust gas shall be treated with DEF when the engine is operating at or above 572°F (300 °C) but below 1022°F (550 °C) except for periods of start-up, shutdown, or malfunction. The SCR shall be considered fully operational for emission calculation purposes when DEF dosing is occurring.

   f. Nitrogen oxides and Carbon Monoxide (CO) from diesel engine-generator set, EG-138, shall be controlled by a diesel oxidation catalyst (DOC) and exhaust gas recirculation (EGR). EG-138 shall also be equipped with electronic fuel controls.

   (9 VAC 5-80-110 and Condition 1 of 6/18/2018 mNSR Permit)

2. **Limitations –** All of the diesel engine-generators and any pollution control device identified in this permit shall be operated and maintained, at a minimum, according to the

manufacturer's written instructions or according to procedures developed by the permittee that are approved by the manufacturer. In addition, the permittee may only change those settings that are permitted by the manufacturer and do not increase air emissions.
(9 VAC 5-80-110, 40 CFR §60.4211(a)(1)(2), 40 CFR §63.6625(e), 40 CFR §63.6640(a) and Condition 3 of 6/18/2018 mNSR Permit)

3. **Limitations –** The approved fuel for use in all of the diesel engine-generators identified in this permit is diesel fuel oil that has a maximum sulfur content not to exceed 0.0015% by weight (15 ppm), and either a minimum cetane number of forty or maximum aromatic content of 35 volume percent.
(9 VAC 5-80-110, 40 CFR §60.4207, 40 CFR §60.4209(b), §63.6604 (b), and Condition 6 of 6/18/2018 mNSR Permit)

4. **Limitations –** The permittee shall obtain a certification from the fuel supplier with each shipment of diesel fuel. Each fuel supplier certification shall include the following:

   a. The name of the fuel supplier;

   b. The date on which the diesel fuel was received;

   c. The quantity of diesel fuel delivered in the shipment;

   d. A statement that the diesel fuel conforms to the applicable fuel specification requirements of Condition 3; and

   e. The sulfur content of the diesel fuel.

   Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in Condition 3. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.
   (9 VAC 5-80-110 and Condition 7 of 6/18/2018 mNSR Permit)

5. **Limitations –** The hours of operation of the diesel engine-generators are limited as follows:

   a. Each engine-generator identified in the list of emission units (<u>except</u> EG-POD 1 through EG-POD 10, EG-52 C through EG-52 F, Gen-1 through Gen-10, EG-47, EG-53A, and EG-138) of this permit shall not operate more than 325 hours per year, calculated monthly as the sum of each consecutive 12 month period. Each engine-generator set controlled by SCR (Ref. Nos. EG-POD 5 through EG-POD 10) shall not operate without the exhaust gas treated with DEF for more than 100 hours per year, calculated monthly as the sum of each consecutive 12 month period.

   b. Each diesel engine-generator, EG-POD 1 through EG-POD 10, EG-52C through EG-52F, EG-47, EG-53A, and EG-138 shall not operate more than 500 hours per year, calculated monthly as the sum of each consecutive 12 month period.

c. Each diesel engine-generator, Gen-1 through Gen-10, shall not operate more than 470 hours per year, calculated monthly as the sum of each consecutive 12 month period.

Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-110 and Condition 5 of 6/18/2018 mNSR Permit)

6. **Limitations –** The emergency diesel engine-generators, (EG-POD 1 through EG-POD 10, EG-10, EG-11F, EG-25, EG-42, EG-47, EG-51A, EG-51B, EG-52B through EG-52F, EG-53A, EG-60, EG-70K, EG-80, EG-89, and EG-138) shall only be operated in the following modes:

   a. In situations that arise from sudden and reasonably unforeseeable events where the primary energy or power source is disrupted or disconnected due to conditions beyond the control of an owner or operator of a facility including:

      1) A failure of the electrical grid;

      2) On-site disaster or equipment failure; or

      3) Public service emergencies such as flood, fire, natural disaster, or severe weather conditions.

   b. For participation in an ISO-declared emergency, where an ISO emergency is:

      1) An abnormal system condition requiring manual or automatic action to maintain system frequency, to prevent loss of firm load, equipment damage, or tripping of system elements that could adversely affect the reliability of an electric system or the safety of persons or property;

      2) Capacity deficiency or capacity excess conditions;

      3) A fuel shortage requiring departure from normal operating procedures in order to minimize the use of such scarce fuel;

      4) Abnormal natural events or man-made threats that would require conservative operations to posture the system in a more reliable state; or

      5) An abnormal event external to the ISO service territory that may require ISO action.

   c. For periodic maintenance, testing, and operational training. These engines may operate up to 100 hours per year for maintenance and readiness testing of which 50 hours (of the 100) per year can be non-emergency for operational training.

   (9 VAC 5-80-110, 40 CFR §60.4211(f), 40 CFR §63.6640(f), and Condition 4 of 6/18/2018 mNSR Permit)

7. **Limitations –** Emissions from the operation of each diesel engine-generator listed below shall not exceed the limits specified below:

Unit	NOx (as NO_2) (lbs/hr)	CO (lbs/hr)	VOC (lbs/hr)	$PM_{10/2.5}$ (lbs/hr)
Gen-1 through Gen-6 with diesel oxidation catalyst (each unit)	33.6	1.2	1.5	0.6
Gen-1 through Gen-6 without diesel oxidation catalyst (each unit)	33.6	4.0	1.5	0.6
Gen-7 through Gen-10 (each unit)	33.6	4.0	1.5	0.6
EG- 70K	16.1	3.5	1.3	1.1
EG-11F	38.9	4.0	1.5	0.6
EG-POD 1 through EG-POD 3 (each unit)	38.9	3.5	0.9	0.3
EG-POD 4	48.1	6.2	1.1	0.4
EG-POD 5 (with SCR)*	6.37	3.95	1.13	0.57
EG-POD 5 (without SCR)**	42.45	3.95	1.13	0.57
EG-52C through EG-52E (each unit)	5.5	0.9	2.7	0.2
EG-POD 6 through EG-POD 10 with SCR* (each unit)	10.58	14.28	2.87	0.90
EG-POD 6 through EG-POD 10 without SCR** (each unit)	70.56	14.28	2.87	0.90
EG-52C through EG-52E (each unit)	5.5	0.9	2.7	0.2

Unit	NOx (as NO_2) (lbs/hr)	CO (lbs/hr)	VOC (lbs/hr)	$PM_{10/2.5}$ (lbs/hr)
Gen-36B	2.23	0.48	0.18	0.16
EG-10	0.33	0.31	0.2	0.01
EG-25	5.89	1.27	0.48	0.42
EG-42	12.21	2.63	0.99	0.87
EG-51A	0.84	0.18	0.07	0.06
EG-51B	12.21	2.63	0.99	0.87
EG-52B	23.41	5.04	1.90	1.66
EG-60	3.38	0.73	0.27	0.24
EG-80	4.87	1.05	0.39	0.35
EG-89	2.79	0.60	0.23	0.20
EG-52F	0.74	0.10	0.04	0.06
EG-53A	1.20	0.31	0.13	0.04
EG-47	5.63	2.96	0.17	0.22
EG-138	0.5	0.05	0.005	0.003

* These limits apply only to NOx (as NO_2) during the hours that SCR I operating.
** These limits apply only to NOx (as NO_2) during the hours that SCR is not operating.

(9 VAC 5-80-110 and Condition 8 of 6/18/2018 mNSR Permit)

8. **Limitations –** The annual emissions from engine-generator sets shall not exceed the limits specified below:

Unit	NOx (as NO_2) (tpy)	CO (tpy)	VOC (tpy)	$PM_{10/2.5}$ (tpy)
Gen-1 through Gen-6	47.38	2.03	2.12	0.85
Gen-7 through Gen-10	31.58	3.76	1.41	0.56
EG-70K	2.62	0.57	0.21	0.18
EG-11F	6.32	0.65	0.24	0.10
EG-POD 1 through EG-POD 3	29.18	2.63	0.68	0.23
EG-POD 4	12.03	1.55	0.28	0.10
EG-POD 5	3.40	0.99	0.28	0.14
EG-POD 6 through EG-POD 10	28.22	17.85	3.59	1.13
EG-52C through EG-52F	4.13	0.68	2.03	0.15
Combined Gen-36B, EG-10, EG-25, EG-42, EG-51A, EG-51B, EG-52B, EG-60, EG-80, and EG-89	11.08	2.43	0.93	0.79
Combined EG-47, EG-52F, EG-53A, and EG-138	2.02	0.86	0.08	0.07

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 5, 7, and/or 36.
(9 VAC 5-80-110 and Condition 9 of 6/18/2018 mNSR Permit)

9. **Limitations –** Visible emissions from diesel engine-generators, EG-POD 1 through EG-POD 10, EG-52 C through EG-52 F, Gen-1 through Gen-10, EG-10, EG-11F, EG-89, Gen-36B, EG-47, EG-51A, EG-53A, EG-60, EG-70K, EG-80, and EG-138 shall not exceed 5 percent opacity except during one 6-minute period in any one hour in which visible emissions shall not exceed 10 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction. During start-up and shut-down times, visible emissions from the engines shall not exceed 10 percent opacity except during one 6-minute period in any one hour in which visible emissions shall not exceed 20 percent opacity.
(9 VAC 5-80-110 and Condition 10 of 6/18/2018 mNSR Permit)

10. **Limitations –** Visible emissions from emergency diesel engine-generators, EG-25, EG-42, EG-51B, and EG-52B shall not exceed 10 percent opacity except during one 6-minute period in any one hour in which visible emissions shall not exceed 20 percent opacity as determined by the EPA Method 9 (reference 40 CFR §60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9 VAC 5-80-110 and Condition 11 of 6/18/2018 mNSR Permit)

11. **Limitations –** The EG-10 propane engine-generator shall comply with the emission standards in 40 CFR §60.4231(a) for stationary SI ICE (engine must meet the emission standards and related requirements in 40 CFR part 90).
(9 VAC 5-80-110 and 40 CFR §60.4233)

12. **Limitations –** The EG-10 propane engine-generator shall meet the emission standards as required in Condition 11 for the entire life of the engine.
(9 VAC 5-80-110 and 40 CFR §60.4232)

13. **Limitations –** The propane engine-generator, EG-10, must be certified to the emission standards specified in 40 CFR §60.4233 (a) through (c). The propane engine-generator must be operated according to manufacturer's emission-related written instructions and records of conducted maintenance must be kept to demonstrate compliance. EG-10 shall also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as applicable. Any adjustment of the engine settings according to and consistent with the manufacturer's instructions will not be considered out of compliance.
(9 VAC 5-80-110 and 40 CFR §60.4243(a)(1))

14. **Limitations –** NO_x emissions from diesel engine-generator, EG-80, shall not exceed 9.2 g NO_x/kWe-hr (6.9 g NO_x/HP-hr). The EG-80 diesel engine-generator shall be operated and maintained so that the emission standards as required in §60.4205 are achieved over the entire life of the engine.
(9 VAC 5-80-110, 40 CFR §60.4205 and 40 CFR §60.4206)

15. **Limitations –** Emergency diesel engine-generator, EG-80, must meet the requirements of 40 CFR parts 89, 94 and/or 1068, as applicable.
(9 VAC 5-80-110 and 40 CFR §60.4211(a)(3))

16. **Limitations –** Compliance with emissions standards specified for diesel engine-generator, EG-80, in Condition 14 may be demonstrated by one of the following methods:

    a. The engine must be certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

    b. Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

    c. Keeping records of engine manufacturer data indicating compliance with the standards.

    d. Keeping records of control device vendor data indicating compliance with the standards.

    e. Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable.

    (9 VAC 5-80-110 and 40 CFR §60.4211(b))

17. **Limitations –** The following requirements apply to diesel engine-generators, Gen-1 through Gen-6, except during periods of startup as limited in Condition 18:

    a. Limit concentration of CO in the stationary reciprocating internal combustion engine (RICE) exhaust to 23 ppmvd at 15% O_2; or reduce CO emissions by 70% or more; and

    b. Maintain each diesel oxidation catalyst (DOC) so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test; and

    c. Maintain the temperature of each stationary RICE exhaust so that the catalyst inlet temperature is within the range specified in Condition 1.c.

    (40 CFR §63.6603(a), 40 CFR §63 Subpart ZZZZ Table 2d, 40 CFR §63 Subpart ZZZZ Table 2b, 40 CFR §63 Subpart ZZZZ Table 5, 40 CFR §63.6625(h))

18. **Limitations –** Minimize diesel engine-generators, Gen-1 through Gen-6, time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup to 40 CFR Subpart ZZZZ apply.
    (9 VAC 5-80-110 and 40 CFR §63.6625(h))

19. **Limitations –** The permittee shall comply with the emission standards for new compression ignition (CI) engines in 40 CFR §60.4201 for all pollutants as applicable to the diesel engine-generators, Gen-7 through Gen-10, and Gen-36B.
    (9 VAC 5-80-110 and 40 CFR §60.4204)

20. **Limitations –** The permittee shall comply with the emission standards for new non-road CI engines in §60.4202 for all pollutants as applicable to diesel engine-generators, EG-POD 1 through EG-POD 10, EG-11F, EG-47, EG-51A, EG-52C through EG-52F, EG-53A, EG-89, and EG-138.
(9 VAC 5-80-110 and 40 CFR §60.4205)

21. **Limitations –** Diesel engine-generators, Gen-7 through Gen-10, EG-POD 1 through EG-POD 10, EG-11F, Gen-36B, EG-47, EG-51A, EG-52C through EG-52F, EG-53A, EG-89, and EG-138 must be operated and maintained so that the emission standards referenced in Condition 19 and Condition 20 are achieved over the entire life of the engines.
(9 VAC 5-80-110 and 40 CFR §60.4206)

22. **Limitations –** The compliance requirements as applicable to the diesel engine-generators, Gen-1 through Gen-10, EG-POD 1 through EG-POD 10, EG-11F, Gen-36B, EG-47, EG-51A, EG-52C through EG-52F, EG-53A, EG-89, and EG-138 are as follows:

    a. Operate and maintain each stationary compression ignition internal combustion engine and control device according to the manufacturer's emission-related written instructions;

    b. Change only those emission-related settings that are permitted by the manufacturer; and

    c. Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as applicable.

    d. Gen-1 through Gen-10, EG-POD 1 through EG-POD 10, EG-11F, Gen-36B, EG-47, EG-51A, EG-52C through EG-52F, EG-53A, EG-89, and EG-138 must be certified to the emissions standards in 40 CFR §60.4204(b), or §60.4205(b) or (c) as applicable, for the same model year and maximum engine power. The engines must be installed and configured according to manufacturer's emission-related specifications, except as permitted in 40 CFR §60.4211(g).

    (9 VAC 5-80-110 and 40 CFR §60.4211(c))

23. **Limitations –** Conduct a performance tune-up on boiler BOIL-35A according to Condition 24 and Condition 25 and submit a signed statement in the Notification of Compliance Status report that indicates that a tune-up of the boiler was conducted.
(9 VAC 5-80-110, 40 CFR §63.11214(b) and 40 CFR 63 Subpart JJJJJJ Table 2)

24. **Limitations –** Conduct a tune-up of boiler BOIL-35A every 5 years as specified in Condition 25. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. The burner inspection and inspection of the system controlling he air-to-fuel ratio may be delayed to at least once every 72 months.
(9 VAC 5-80-110 and 40 CFR §63.11223(e))

25. **Limitations –** The boiler BOIL-35A tune-up shall consist of the following:

    a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary.

b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.

c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly.

d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject.

e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made. Measurements may be taken using a portable CO analyzer.

f. Maintain on site and submit, if requested by the Administrator, a report containing the information in paragraphs (b)(6)(i) through (iii) of this section.

    1) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.

    2) A description of any corrective actions taken as a part of the tune-up.

    3) The type and amount of fuel used over the 12 months prior to the tune-up.

g. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup.

(9 VAC 5-80-110 and 40 CFR §63.11223(b)(1-7))

26. **Monitoring –** Each diesel engine-generators identified in the Equipment List of this permit shall be equipped with a non-resettable hour metering device to monitor the operating hours. The non-resettable hour meter used to continuously measure the hours of operation for each diesel engine-generator shall be observed by the owner with a frequency of not less than once each day the engine is operated.
(9 VAC 5-80-110, 40 CFR §60.4209(a), §63.6625(f), and Condition 2 of 6/18/2018 mNSR Permit)

27. **Monitoring –** Each monitoring device (e.g. hour meter, NO_x sensor, temperature sensor, pressure gauge) of each diesel engine-generator, EG-POD 1 through EG-POD 10, EG-11F, EG-47, EG-51A, EG-52C through EG-52F, Gen-1 through Gen-10, EG-70K, EG-80, Gen-36B, EG-53A, EG-89, EG-138, as equipped shall be installed, maintained, calibrated (as appropriate) and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations.

Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the engines are operating.
(9 VAC 5-80-110, 40 CFR 60.4209(a), 40 CFR §63.6625(f), and Condition 2 of 6/18/2018 mNSR Permit)

28. **Monitoring –** The closed loop SCR system on diesel engine-generator, EG-POD 5 through EG-POD 10, shall be equipped with a device to measure and record the NO_x emissions (expressed in ppm), measured before and after the catalyst, and catalyst bed exhaust temperature at least once every fifteen minutes. The information shall be correlated to run date, engine load/kilowatt output, and engine operating hours. Total operating time and load shall be recorded for all periods when diesel engine-generator, EG-POD 5 through EG-POD 10, is operational.
(9 VAC 5-80-110 and Condition 2 of 6/18/2018 mNSR Permit)

29. **Monitoring –** Each diesel engine-generator set controlled with DOC, Ref. Nos. Gen-1 through Gen-6, shall be equipped with a device to continuously measure and record the DOC catalyst bed inlet temperature. Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, the temperature measurements shall be taken at a minimum frequency of once every fifteen minutes during the operation of each engine-generator set. The information shall be recorded with run date, and engine operating hours. The DOC catalyst bed inlet temperature will be compared to the temperature limitations described in Condition 1.c. (to determine when the DOC is fully operational).
(9 VAC 5-80-110 and Condition 2 of 6/18/2018 mNSR Permit and 40 CFR §63.6640(a))

30. **Monitoring –** For each non-emergency diesel engine-generator set controlled with DOC, Ref. Nos. Gen-1 through Gen-6, the permittee shall collect the catalyst inlet temperature data according to 40 CFR §63.6625(b), reduce the temperature data to 4-hour rolling averages, and maintain the results to show the 4-hour rolling averages are within the operating limitations for the catalyst inlet temperature, as stated in Condition 1.c. The permittee shall also monitor pressure drop across the catalyst for compliance with Condition 17.b. With prior written approval by the Administrator (DEQ), the permittee may instead use an alternative monitoring procedure (AMP), in accordance with 40 CFR §63 Subpart ZZZZ and 40 CFR 63.8(f), to comply with this condition.
(9 VAC 5-80-110, 40 CFR §63.8(f), 40 CFR §63.6625(b), and 40 CFR §63.6640(a))

31. **Monitoring –** For each diesel engine-generator set controlled with DOC, Ref. Nos. Gen-1 through Gen-6, the permittee shall utilize a Continuous Parameter Monitoring System (CPMS) to monitor the inlet temperature of the catalyst. Also, as stated in the approved AMP, a CPMS shall be used also to monitor the pressure drop across the catalyst. The permittee shall install, operate and maintain each CPMS according to the following requirements:

    a. Prepare a site-specific monitoring plan (SSMP) that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in 40 CFR §§63.6625(b)(1)(i) through (v) and in 40 CFR §63.8(d). As specified in 40 CFR §63.8(f)(4), the permittee may request approval of monitoring system quality

assurance and quality control procedures alternative to those specified in 40 CFR §§63.6625(b)(1) through (5) in the SSMP. The SSMP shall contain the following information:

i. The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;

ii. Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;

iii. Equipment performance evaluations, system accuracy audits, or other audit procedures;

iv. Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR §§63.8(c)(1)(ii) and (c)(3);

v. Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR §§63.10(c), (e)(1), and (e)(2)(i); and

vi. A quality control program in accordance with provisions in 40 CFR §§63.8(d)(1) through (d)(3).

b. The permittee must install, operate, and maintain each CPMS in continuous operation according to the procedures in the SSMP.

c. The CPMS must collect data at least once every 15 minutes.

d. For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.

e. The permittee must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the SSMP at least annually.

f. The permittee must conduct a performance evaluation of each CPMS in accordance with the SSMP. The permittee shall submit a Notification of Intent to conduct a CPMS performance evaluation at least 60 days before a performance evaluation is scheduled to begin.

The plan shall be available on site for review by DEQ, upon request.
(9 VAC 5-80-110, 40 CFR §63.8 and 40 CFR §63.6625(b)(1) through (6))

32. **Stack Test –** The permittee shall conduct performance tests on each non-emergency diesel engine generator with DOC, Ref. Nos. Gen-1 through Gen-6, every 8,760 hours or 3 years, whichever comes first, for carbon monoxide (CO) emissions to demonstrate that the required CO percent reduction is achieved or that the emissions remain at or below the CO

concentration limit, as stated in Condition 17. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30, and 40 CFR §63.6620 and 40 CFR §63 Subpart ZZZZ Tables 3 and 4. The details of the tests are to be arranged with the Air Compliance Manager of DEQ's Northern Regional Office. The permittee shall submit notification and a test protocol at least 60 days prior to testing. Two copies, one paper copy and one on removable electronic media, of the test results shall be submitted to the Air Compliance Manager of DEQ's Northern Regional Office within 60 days after test completion and shall conform to the test report format enclosed with this permit. An electronic copy of the results shall be sent also to U.S. EPA at R3_SubpartZZZZ@epa.gov.
(9 VAC 5-80-110, 9 VAC 5-50-30, 40 CFR §63.6620, and 40 CFR §63.6645)

33. **Testing –** The facility/permitted emission units shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using approved methods. Sampling ports shall be provided at the appropriate locations and safe sampling platforms and access shall be provided when requested.
(9 VAC 5-50-30 F, 9 VAC 5-80-110 and Condition 14 of 6/18/2018 mNSR Permit)

34. **Testing –** Upon request by the DEQ, the permittee shall conduct performance testing and/or visible emission evaluations of the diesel engine-generators (EG-POD 1 through EG-POD 10, EG-11F, EG-52-C through EG-52F, EG-53A, Gen-1 through Gen-10, and EG-138) to demonstrate compliance with the emission limits contained in this permit. The details of the tests shall be arranged with the Regional Air Compliance Manager of the DEQ's Northern Regional Office (NRO).
(9 VAC 5-80-110, 9 VAC 5-50-30 G and Condition 15 of 6/18/2018 mNSR Permit)

35. **Recordkeeping –** Starting with the model years in 40 CFR 60 Subpart IIII Appendix Table 5, if any of emergency diesel engine-generators, EG-POD 1 through EG-POD 10, EG-11F, EG-47, EG-51A, EG-52C through EG-52F, EG-53A, EG-89, and EG-138 does not meet standards applicable to non-emergency engines then records must be kept of the operation of the engine in emergency and non-emergency services that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.
(9 VAC 5-80-110 and 40 CFR §60.4214(b))

36. **Recordkeeping –** The permittee shall maintain records of emission data and operating parameters for all diesel engine-generators as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO. These records shall include, but are not limited to:

    a. Hourly average of NO_x concentration (in ppm) measured at the inlet and outlet of the SCR exhaust catalyst of EG-POD 5 through EG-POD 10 for each hour that EG-POD 5 through EG-POD 10 is operated with SCR fully operational.

    b. Hourly average NO_x control efficiency (in %) calculated from the inlet and outlet of NO_x concentrations of the SCR exhaust catalyst of EG-POD 5 through EG-POD 10 for each hour that EG-POD 5 through EG-POD 10 is operated.

c. Hourly average SCR catalyst bed exhaust temperature of EG-POD 5 through EG-POD 10 for each hour that EG-POD 5 through EG-POD 10 is operated.

d. DOC catalyst bed inlet temperature for each fifteen minute period of operations, run date, and engine operating hours for each DOC equipped engine-generator set, Gen-1 through Gen-6, when operated, as stated in Condition 29.

e. 4-hour averages of DOC catalyst bed inlet temperature data for the non-emergency generators, Gen-1 through Gen-6, to indicate operation within temperature range, specified in Condition 1.c. DOC catalyst bed inlet temperature data collected and reduced in accordance with an approved AMP, per 40 CFR §63.8(f), may instead be used to comply with this condition.

f. Monthly pressure drop measurements across the diesel oxidation catalyst (DOC) of the non-emergency generators, Gen-1 through Gen-6, to indicate operation within 2 inches of water from results obtained during the initial performance test. DOC catalyst pressure drop data collected and reduced in accordance with an approved AMP, per 40 CFR §63.8(f), may instead be used to comply with this condition.

g. Annual hours of operation of each diesel engine-generator, calculated monthly as the sum of each consecutive 12-month period, to verify compliance with the operating limitations in permit Condition 5.

h. Annual hours of operation of each engine-generator set, EG-POD 5 through EG-POD 10, with the SCR fully operational, calculated monthly as the sum of each consecutive 12 month period.

i. Annual hours of operation of each engine-generator set, Ref. Nos. EG-POD 5 through EG-POD 10, without SCR fully operational, calculated monthly as the sum of each consecutive 12 month period.

j. Annual hours of operation of each engine-generator set, Ref. Nos. Gen-1 through Gen-6, with DOC fully operational, calculated monthly as the sum of each consecutive 12 month period.

k. Annual hours of operation of each engine-generator set, Ref. Nos. Gen-1 through Gen-6, without DOC fully operational, calculated monthly as the sum of each consecutive 12 month period. (The hours of operation when the DOC is not fully operational will be determined based on the total hours of engine operation minus the hours with the DOC fully operational).

l. Monthly logs of the hour meter monitoring device observations as required by Condition 26.

m. Monthly Summary Table for each diesel engine-generator to include:

    1) Operating hours;

2) Total engine hours on a rolling twelve month basis;

3) Engine operating hours with and without DOC fully operational on a rolling twelve month basis (Gen-1 through Gen-6);

4) Engine operation hours with and without SCR fully operational on a rolling twelve month basis (EG-POD 5 through 10);

5) Reasons for operation (for emergency units only); and

6) Startup (date and time) and shutdown (date and time).

n. All fuel supplier certifications or the results of fuel sampling in accordance with permit Condition 4.

o. Engine information including make, model, serial number, model year/year of manufacture, maximum engine power (bhp), and engine displacement for each diesel engine-generator listed in the equipment list of this permit.

p. The manufacturer's written operating instructions or procedures developed by the owner/operator that are approved by the engine manufacturer for the diesel engine-generators listed in the equipment list of this permit.

q. Results of all stack tests and visible emission evaluations.

r. Scheduled and unscheduled maintenance and operator training.

s. Records of changes in settings that are permitted by the manufacturer of the diesel engine-generator listed in the equipment list of this permit.

t. All notifications submitted to comply with 40 CFR 60 Subpart JJJJ and all documentation supporting any notification as applicable to EG-10.

u. Documentation from the manufacturer that the EG-10 engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.

v. Records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control and monitoring equipment.

w. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR §63.6605(b), including corrective actions to restore malfunctioning process and monitoring equipment to its normal or usual manner of operation.

x. Records as required in 40 CFR §63.6655 for each engine-generator set, Ref. Nos. Gen-1 through Gen-6, which include copy of notifications, AMP, SSMP, maintenance performed on controls and monitoring equipment, compliance reports, and performance test evaluation reports.

Compliance for the consecutive twelve-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding eleven months.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-110, §63.6655(e and f), 40 CFR §60.4245, 40 CFR §63.6655, 40 CFR §63.6660, and Condition 17 of 6/18/2018 mNSR Permit)

37. **Recordkeeping –** The following records for boiler BOIL-35A must be kept:

a. As required in 40 CFR §63.10(b)(2)(xiv), a copy of each notification and report submitted to comply with 40 CFR 63 Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted.

b. Records to document conformance with the work practices, emission reduction measures, and management practices required by §63.11214 and §63.11223 as follows:

1) Records must identify the boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.

c. Records of the occurrence and duration of each malfunction of boiler BOIL-35A, or of the associated air pollution control and monitoring equipment.

d. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in §63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.

Records must be in a form suitable and readily available for expeditious review. Each record must be kept for 5 years following the date of each recorded action. Each record must be kept on site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. Records may be kept off site for the remaining 3 years.
(9 VAC 5-80-110 and 40 CFR §63.11225)

38. **Reporting –** A semi-annual compliance report for diesel engine-generators, Gen-1 through Gen-6, shall be submitted to the Regional Air Compliance Manager of DEQ's NRO in accordance with the requirements of 40 CFR §63.6650(a), (b)(1) through (5), (c)(1) through (6) and (e)(1) through (12), and shall contain the following information:

a. Company name and address where the engine is located.

b. Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

c. Date of the report and beginning and ending dates of the reporting period.

d. If a malfunction occurred during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with 40 CFR §63.6605(b), including actions taken to correct a malfunction.

e. If there are no deviations from any emission or operating limitations that apply, a statement that there were no deviations from the emission or operating limitations during the reporting period.

f. If there were no periods during which the continuous monitoring system (CMS), including continuous emissions monitoring systems (CEMS) and continuous parametric monitoring systems (CPMS), was out-of-control, as specified in 40 CFR §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

g. For each deviation from an emission or operating limitation occurring for a stationary RICE when utilizing a CMS to comply with the emission and operating limitations in this subpart, include the following information:

    i. The date and time that each malfunction started and stopped.

    ii. The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.

    iii. The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8).

    iv. The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.

    v. A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

    vi. A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

vii. A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.

viii. An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.

ix. A brief description of the stationary RICE.

x. A brief description of the CMS.

xi. The date of the latest CMS certification or audit.

xii. A description of any changes in CMS, processes, or controls since the last reporting period.

The semi-annual compliance report shall be submitted to the Regional Air Compliance Manager of DEQ's NRO and a copy to U.S. EPA Region III. The first semi-annual report must cover the period from the effective date of the permit and must be submitted no later than July 31 if it is during the semi-annual period from January 1 through June 30; and submitted no later than January 31 if it is during the semi-annual period from July 1 through December 31. Subsequent semi-annual reports must be submitted no later than July 31, for the semi-annual period from January 1 to June 30; and submitted no later than January 31, after the semi-annual period from July 1 to December 31.
(9 VAC 5-80-110, 40 CFR §63.6640(b), 40 CFR §63.6650, and 40 CFR §63 Subpart ZZZZ Table 7)

39. **Reporting –** For each emergency diesel engine-generator, EG-POD 1 through EG-POD 10, EG-11F, EG-47, EG-51A, EG-52C through EG-52F, EG-53A, EG-89, and EG-138, with a maximum engine power more than 100 HP that operates for the purposes specified in §60.4211(f)(3)(i), the permittee must submit an annual report according to the following requirements, a, b, and c.

    a. The report must contain the following information:
        1) Company name and address where the engine is located.
        2) Date of the report and beginning and ending dates of the reporting period.
        3) Engine site rating and model year.
        4) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
        5) Hours spent for operation for the purposes specified in §60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in §60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

    b. The first annual report must cover the calendar year 2016 from the effective date of the permit and must be submitted no later than March 31, 2017. Subsequent annual reports

for each calendar year must be submitted no later than March 31 of the following calendar year.

c. The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §60.4.

(9 VAC 5-80-110 and 40 CFR §60.4214(d))

40. **Reporting –** A 5-year compliance report for boilers BOIL-35A is required to be submitted to the DEQ Northern Regional Air Compliance Manager that includes the following information:

a. Company name and address.

b. Statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart. Your notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:
1) "This facility complies with the requirements in §63.11223 to conduct a 5-year tune up, as applicable to boilers BOIL-35A."

(9 VAC 5-80-110 and 40 CFR §63.11225(b))

41. **General –** The permittee shall comply with the General Provisions of 40 CFR §60 Subpart JJJJ Table 3 as applicable to diesel engine-generator, EG-10.
(9 VAC 5-80-110 and 40 CFR §60.4246)

42. **General –** The permittee shall comply with the General Provisions of 40 CFR §60 Subpart IIII Table 8 as applicable to diesel engine-generator, EG-80.
(9 VAC 5-80-110 and 40 CFR §60.4218)

43. **General –** Diesel engine-generators, Gen-1 through Gen-6, shall comply with emissions limitations, operating limitations, and other requirements of 40 CFR §63 Subpart ZZZZ apply at all times. They shall at all times be operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions. Compliance with this condition may be demonstrated with records of monitoring results, operation and maintenance procedures and operation and maintenance records.
(9 VAC 5-80-110 and 40 CFR §63.6605)

44. **General –** The permittee shall comply with the General Provisions of 40 CFR §63 Subpart ZZZZ Table 8 as applicable to diesel engine-generators Gen-1 through Gen-6.
(9 VAC 5-80-110 and 40 CFR §63.6665)

45. **General –** The permittee shall comply with the general provisions listed in 40 CFR 60 Subpart IIII Appendix Table 8 as they apply to diesel engine-generators, Gen-7 through Gen-10, EG-POD 1 through EG-POD 10, EG-11F, Gen-36B, EG-47, EG-51A, EG-52C through EG-52F, EG-53A, EG-89, and EG-138.
(9 VAC 5-80-110 and 40 CFR §60.4218)

46. **General –** At all times boiler BOIL-35A must be operated and maintained, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
(9 VAC 5-80-110 and 40 CFR §63.11205)

47. **General –** The permittee shall comply with the general provisions listed in 40 CFR 63 Subpart JJJJJJ Appendix Table 8 as they apply to boiler BOIL-35A.
(9 VAC 5-80-110 and 40 CFR §63.11235)

Facility Wide Conditions

48. **Correspondence –** All correspondence concerning this permit shall be submitted to the following address:

    Regional Air Compliance Manager
    Department of Environmental Quality
    Northern Regional Office
    13901 Crown Court
    Woodbridge, Virginia 22193

    (9 VAC 5-80-110, 9 VAC 5-50-50 and Condition 18 of 6/18/2018 mNSR Permit)

49. **Maintenance/Operating Procedures –** At all times, including periods of start-up, shutdown and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, in a manner consistent with good air pollution control practices for minimizing emissions.

    The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:

    a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

b. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

c. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9 VAC 5-50-20 E, 9 VAC 5-80-110, and Condition 23 of 6/18/2018 mNSR Permit)

50. **Record of Malfunctions –** The permittee shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown or failure of the facility or its associated air pollution control equipment that results in excess emissions for more than one hour. Records shall include the date, time, duration, description (emission unit, pollutant affected, cause), corrective action, preventive measures taken and name of person generating the record.
(9 VAC 5-20-180 J and 9 VAC 5-80-110)

51. **Notification for Facility or Control Equipment Malfunction –** The permittee shall furnish notification to the Regional Air Compliance Manager of the DEQ's NRO, of malfunctions of the affected facility that may cause excess emissions for more than one hour. Such notification shall be made as soon as practicable but no later than four daytime business hours after the malfunction is discovered. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two weeks of discovery of the malfunction. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the Regional Air Compliance Manager of the DEQ's NRO.
(9 VAC 5-20-180 C and 9 VAC 5-80-110)

52. **Initial Notifications –** The permittee shall furnish written notification to DEQ's Northern Regional Office of:

a. The actual date on which construction of each engine-generator set (Ref. Nos. EG-POD 9 and EG-POD 10) commenced within thirty days after such date. The notification shall include the following:
   i. Name and address of the permittee;
   ii. The address of the affected source;
   iii. Engine information including make, model, engine family, serial number, model year, maximum engine power and engine displacement;
   iv. Emission control equipment; and
   v. Fuel used.

b. The anticipated start-up date of each engine-generator set (Ref. Nos. EG-POD 9 and EG-POD 10), postmarked not more than sixty days nor less than thirty days prior to such date.

c. The actual start-up date of each engine-generator (Ref. Nos. EG-POD 9 and EG-POD 10, within fifteen days after such date. The actual start-up date shall be the date on which the engine completes manufacturer's trials, but shall be no later than thirty days after start-up for manufacturer's trials**.**

(9 VAC 5-50-50, 9VAC 5-80-110 and Condition 16 of 6/18/2018 mNSR Permit)

53. **Violation of Ambient Air Quality Standard –** The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
(9 VAC 5-20-180 I and 9 VAC 5-80-110)

Insignificant Emission Units

54. **Insignificant Emission Units –** The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation[1] (9 VAC_)	Pollutant(s) Emitted (9 VAC 5-80-720B)	Rated Capacity (MMBtu/hr) (9 VAC 5-80-720C)
BOIL-1	Burnham boiler fuel oil fired	5-80-720 C	NO_x, VOC, PM, SO_2, CO	1.010
BOIL-9a	Weil McLain boiler, fuel oil fired	5-80-720 C	NO_x, VOC, PM, SO_2, CO	0.295
B1-B25	Propane fired boiler	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.6
B2-B25	Propane fired boiler	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.6
B3-B25	Propane fired boiler	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.6
B4-B25	Propane fired boiler	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.6
BOIL-40	Weil Mclain boiler fuel oil fired	5-80-720 C	NO_x, VOC, PM, SO_2, CO	0.115

Emission Unit No.	Emission Unit Description	Citation[1] (9 VAC_)	Pollutant(s) Emitted (9 VAC 5-80-720B)	Rated Capacity (MMBtu/hr) (9 VAC 5-80-720C)
BOIL-41A	Propane fired Viessmann (2013)	5-80-720 B	NO_x, VOC, PM, SO_2, CO	2.576
BOIL-41B	Propane fired Fulton Boiler Works steam boiler (2014)	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.335
BOIL-42	Propane fired Trane burner	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.200
BOIL-46A	Burnham boiler fuel oil fired	5-80-720 C	NO_x, VOC, PM, SO_2, CO	0.770
BOIL-51A	Triad boiler fuel oil fired	5-80-720 C	NO_x, VOC, PM, SO_2, CO	0.700
BOIL-51B	Triad boiler fuel oil fired	5-80-720 C	NO_x, VOC, PM, SO_2, CO	0.700
BOIL-52A	Triad boiler fuel oil fired	5-80-720 C	NO_x, VOC, PM, SO_2, CO	0.700
BOIL-52B	Triad boiler fuel oil fired	5-80-720 C	NO_x, VOC, PM, SO_2, CO	0.700
BOIL-63A	Burnham boiler fuel oil fired	5-80-720 C	NO_x, VOC, PM, SO_2, CO	1.063
BOIL-63B	Burnham boiler fuel oil fired	5-80-720 C	NO_x, VOC, PM, SO_2, CO	1.063
BOIL-64	Burnham boiler fuel oil fired	5-80-720 C	NO_x, VOC, PM, SO_2, CO	0.871
H-9A	Fuel oil fired AAON rooftop space heater	5-80-720 C	NO_x, VOC, PM, SO_2, CO	0.194
H-9B	Fuel oil fired AAON rooftop space heater	5-80-720 C	NO_x, VOC, PM, SO_2, CO	0.194
F-36	Propane fired Armstrong furnace	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.350

Emission Unit No.	Emission Unit Description	Citation[1] (9 VAC_)	Pollutant(s) Emitted (9 VAC 5-80-720B)	Rated Capacity (MMBtu/hr) (9 VAC 5-80-720C)
H-46A	Fuel oil fired PVI hot water heater	5-80-720 C	NO_x, VOC, PM, SO_2, CO	0.199
H-46B	Fuel oil fired PVI hot water heater	5-80-720 C	NO_x, VOC, PM, SO_2, CO	0.199
F-48A	Fuel oil fired Carrier furnace	5-80-720 C	NO_x, VOC, PM, SO_2, CO	0.085
F-48B	Fuel oil fired Carrier furnace	5-80-720 C	NO_x, VOC, PM, SO_2, CO	0.085
F-48C	Fuel oil fired Reznor furnace	5-80-720 C	NO_x, VOC, PM, SO_2, CO	0.315
F-53A	Propane fired Heil outdoor furnace	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.090
F-53B	Propane fired Carrier outdoor furnace	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.090
F-56	Propane fired heat pump system	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.200
F-68A	Propane fired Carrier outdoor furnace	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.060
F-68B	Propane fired Carrier outdoor furnace	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.060
F-68C	Propane Trane indoor furnace	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.113
F-68D	Propane Trane indoor furnace	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.113

Emission Unit No.	Emission Unit Description	Citation[1] (9 VAC_)	Pollutant(s) Emitted (9 VAC 5-80-720B)	Rated Capacity (MMBtu/hr) (9 VAC 5-80-720C)
H-72A	Propane fired Bard heater	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.075
H-72B	Propane fired Bard heater	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.075
F-80	Propane fired Carrier furnace	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.040
H-90A	Propane fired Master outdoor heater	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.375
H-90B	Propane fired Master outdoor heater	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.375
H-90C	Propane fired Carrier outdoor heater	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.150
F-96A	Propane fired Carrier furnace	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.115
F-96B	Propane fired Carrier furnace	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.115
F-96C	Propane fired Heil furnace	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.115
F-96D	Propane fired Carrier furnace	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.115
F-96E	Propane fired Carrier furnace	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.115
H-113B	Propane fired Trane rooftop space heater	5-80-720 B	NO_x, VOC, PM, SO_2, CO	0.200

[1]The citation criteria for insignificant activities are as follows:
9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
9 VAC 5-80-720 B - Insignificant due to emission levels
9 VAC 5-80-720 C - Insignificant due to size or production rate

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Permit Shield & Inapplicable Requirements

55. **Permit Shield & Inapplicable Requirements –** Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
40 CFR 60.40c through 40 CFR 60.48c.	Subpart Dc- Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	No boiler is over 10 MMBtu/hr.
40 CFR 64	Compliance Assurance Monitoring (CAM)	Emission unit: - emits or has the potential to emit quantities of one or more regulated air pollutants that exceed major source thresholds; -is subject to one or more emission limitations for the regulated air pollutant(s) for which it is major before control - uses a control device to achieve compliance with one or more of these emission limitations

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-90-110 and 9 VAC 5-80-140)

General Conditions

56. **Federal Enforceability –** All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-110 N)

57. **Permit Expiration –** This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

    a. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.

    b. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.

    c. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.

    d. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

    e. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

    (9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

58. **Recordkeeping and Reporting –**

    a. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

        1) The date, place as defined in the permit, and time of sampling or measurements;

        2) The date(s) analyses were performed;

3) The company or entity that performed the analyses;

4) The analytical techniques or methods used;

5) The results of such analyses; and

6) The operating conditions existing at the time of sampling or measurement.

b. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than March 1 and September 1 of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1) The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31; and
2) All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:

(i) Exceedance of emissions limitations or operational restrictions;

(ii) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,

(iii) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

(iv) If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

(9 VAC 5-80-110 F)

59. **Annual Compliance Certification –** Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five (5) years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

a. The time period included in the certification. The time period to be addressed is January 1 to December 31;

b. The identification of each term or condition of the permit that is the basis of the certification;

c. The compliance status;

d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance;

e. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period;

f. Such other facts as the permit may require to determine the compliance status of the source; and

g. The annual certification shall be submitted to EPA in electronic format only. The certification document shall be submitted by e-mail to the following address: R3_APD_Permits@epa.gov. The permittee shall maintain a copy of the certification on site for five years from submittal of the certification.

(9 VAC 5-80-110 K.5)

60. **Permit Deviation Reporting –** The permittee shall notify the Air Compliance Manager of DEQ's Northern Regional Office within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to Condition 58.b. of this permit. (9 VAC 5-80-110 F.2)

61. **Failure/Malfunction Reporting –** In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Director, Northern Regional Office by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure

or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Northern Regional Office.
(9 VAC 5-20-180 C)

62. **Severability –** The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1 and 9 VAC 5-20-180)

63. **Duty to Comply –** The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)

64. **Need to Halt or Reduce Activity not a Defense –** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)

65. **Permit Modification –** A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9 VAC 5-80-110, 9 VAC 5-80-190 and 9 VAC 5-80-260)

66. **Property Rights –** The permit does not convey any property rights of any sort, or any exclusive privilege.
(9 VAC 5-80-110 G.5)

67. **Duty to Submit Information –**

    a. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.

    b. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.

    (9 VAC 5-80-110 G.6 and 9 VAC 5-80-110 K.1)

68. **Duty to Pay Permit Fees –** The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350 in addition to an annual permit maintenance fee consistent with the requirements of 9 VAC 5-80-2310 through 9 VAC 5-80-2350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department. The amount of the annual permit maintenance fee shall be the largest applicable base permit maintenance fee amount from Table 8-11A in 9 VAC 5-80-2340, adjusted annually by the change in the Consumer Price Index.
(9 VAC 5-80-110 H, 9 VAC 5-80-340 C and 9 VAC 5-80-2340 B)

69. **Fugitive Dust Emission Standards –** During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

    a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

    b. Application of asphalt, water or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

    c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;

    d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

    e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

    (9 VAC 5-80-110 and 9 VAC 5-50-90)

70. **Startup, Shutdown, and Malfunction –** At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring

results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9 VAC 5-80-110 and 9 VAC 5-50-20 E)

71. **Alternative Operating Scenarios –** Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.
(9 VAC 5-80-110 J)

72. **Inspection and Entry Requirements –** The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

d. Sample or monitor at reasonable times' substances or parameters for the purpose of assuming compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

73. **Reopening For Cause –** The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F. The conditions for reopening a permit are as follows:

a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

74. **Permit Availability –** Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9 VAC 5-80-110 and 9 VAC 5-80-150 E)

75. **Transfer of Permits –**

a. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.

b. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.

c. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.

(9 VAC 5-80-110 and 9 VAC 5-80-160)

76. **Permit Revocation or Termination for Cause –** A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit applicability or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-110, 9 VAC 5-80-190 C and 9 VAC 5-80-260)

77. **Duty to Supplement or Correct Application –** Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-110 and 9 VAC 5-80-80 E)

78. **Stratospheric Ozone Protection –** If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI

(Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to I.
(9 VAC 5-80-110 and 40 CFR §Part 82, Subparts A-I)

79. **Asbestos Requirements –** The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR §61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR §61.145), Standards for Insulating Materials (40 CFR §61.148), and Standards for Waste Disposal (40 CFR §61.150).
(9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)

80. **Accidental Release Prevention** – If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR §68.115, the permittee shall comply with the requirements of 40 CFR Part §68.
(40 CFR Part §68)

81. **Changes to Permits for Emissions Trading –** No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110 I and 40 CFR Part 68)

82. **Emissions Trading –** Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

    a. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.

    b. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

    c. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

    (9 VAC 5-80-110 I)

Appendix A

Warrenton Training Center 40902
Engine-Generators Emission Factors

Unit	Engine Rating	NO_x (as NO_2) Emissions	CO Emissions	VOC Emissions	$PM_{10}/PM_{2.5}$ Emissions	SO_2 Emissions
Unit	(hp)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)
EG-89	90	2.79	0.60	0.23	0.20	0.18
Gen-36B	72	2.23	0.48	0.18	0.16	0.15
EG-42	394	12.21	2.63	0.99	0.87	0.81
EG-51A	27	0.84	0.18	0.07	0.06	0.06
EG-51B	394	12.21	2.63	0.99	0.87	0.81
EG-52B	755	23.41	5.04	1.90	1.66	1.55
EG-80	157	4.87	1.05	0.39	0.35	0.32
EG-25	190	5.89	1.27	0.48	0.42	0.39
EG-60	109	3.38	0.73	0.27	0.24	0.22
EG-70K	519	16.1	3.5	1.3	1.1	1.06
Gen-1 through Gen-6 w/o control (each unit)	2,636	33.6	4.0	1.5	0.6	0.03
Gen-1 through Gen-6 w/diesel oxidation catalyst* (each unit)	2,636	33.6	1.2	1.5	0.6	0.03
Gen-7 through Gen-10 (each unit)	2,690	33.6	4.0	1.5	0.6	0.03
EG-11F	2,937	38.9	4.0	1.5	0.6	0.03
EG-10	14	0.33	0.31	0.2	0.01	0.01
EG-POD 1 through EG-POD 3 (each unit)	2,937	38.9	3.5	0.9	0.3	3.56E-02
EG-POD 4	3,634	48.1	6.2	1.1	0.4	4.41E-02
EG-POD 5 with SCR**	2,937	6.37	3.95	1.13	0.57	3.56E-02
EG-POD 5 without SCR***	2,937	42.45	3.95	1.13	0.57	3.56E-02
EG-POD 6 through EG-POD 10 with SCR (each unit)**	4,423	10.58	14.28	2.87	0.90	5.37E-02
EG-POD 6 through EG-POD 10 without SCR (each unit)***	4,423	70.56	14.28	2.87	0.90	5.37E-02

Appendix A

Warrenton Training Center 40902
Engine-Generators Emission Factors

EG-52 C through EG-52 E (each unit)	755	5.5	0.9	2.7	0.2	9.16E-03
EG-52F	42	0.74	0.10	0.04	0.06	0.09
EG-53A	161	1.20	0.31	0.13	0.04	0.33
EG-47	531	5.63	2.96	0.17	0.22	1.09
EG-138	74.3	0.5	0.05	0.005	0.003	0.15

*Gen-1 through Gen-6 are equipped with diesel oxidation catalysts (DOCs) that are to provide a minim of 70% reduction in CO according to manufacturer specifications.
**EG-POD 6 through EG-POD 10 are each equipped with a Caterpillar (CAT) Selective Catalytic Reduction (SCR) System that includes an SCR with closed loop dosing to control NOx by 85% guarantee and a diesel particulate filter (DPF) to control PM (no guarantee provided).
***The NOx emission factor applies when the SCR system is not operating within the manufacturer cited exhaust temperature limits or when there is no DEF dosing.